

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1 (Original): An exposure apparatus comprising:
- a projection optical system for projecting a pattern of a mask onto a substrate; and
- a fluid supply unit for supplying a fluid between said projection optical system and the substrate, said fluid supply unit including an injection unit for injecting carbon dioxide into the fluid.
- 2 (Original): An exposure apparatus according to claim 1, wherein said fluid supply unit includes a degassing unit for degassing the fluid, said degassing unit being located at an upstream side of the injection unit.
- 3(Previously Amended): An exposure apparatus according to claim 1, wherein said injection apparatus includes a membrane module for injecting the carbon dioxide.
- 4 (Previously Amended): An exposure apparatus according to claim 1, wherein the injection unit injects the carbon dioxide at a concentration of the carbon dioxide in the fluid between 0.02 ppm and 750 ppm.
- 5 (Original): An exposure apparatus according to claim 4, wherein the injection unit injects the carbon dioxide at the concentration of the carbon dioxide in the fluid between 0.06 ppm and 300 ppm.

6 (Previously Amended): An exposure apparatus according to claim 1, wherein the fluid supply unit includes a resistivity meter for measuring a resistivity value of the fluid, and the injection unit injects the carbon dioxide based on a measurement result of the resistivity meter.

7 (Previously Amended): An exposure apparatus according to claim 1, wherein the injection unit injects the carbon dioxide so that a resistivity value of the fluid is between $0.02 \text{ M}\Omega\cdot\text{cm}$ and $10 \text{ M}\Omega\cdot\text{cm}$.

8 (Original): An exposure apparatus according to claim 7, wherein the injection unit injects the carbon dioxide so that the resistivity value of the fluid is between $0.04 \text{ M}\Omega\cdot\text{cm}$ and $5 \text{ M}\Omega\cdot\text{cm}$.

9 (Currently Amended): An exposure apparatus comprising:
an illumination optical system for illuminating a mask using light from a light source; and
a projection optical system for projecting a pattern of the mask onto a substrate,
wherein a concentration of carbon dioxide in a fluid supplied to a space between said projection optical system and the substrate is ~~has a concentration of carbon dioxide~~ between 0.02 ppm and 750 ppm.

10 (Currently Amended): An exposure apparatus according to claim 9, wherein ~~the injection unit injects the carbon dioxide at~~ the concentration of the carbon dioxide in the fluid is between 0.06 ppm and 300 ppm.

11 (Currently Amended): An exposure apparatus comprising:

an illumination optical system for illuminating a mask using light from a light source; and

a projection optical system for projecting a pattern of the mask onto a substrate, wherein a resistivity value of a fluid supplied to a space between said projection optical system and the substrate ~~is has a resistivity value~~ between 0.02 MΩ·cm and 10 MΩ·cm.

12 (Currently Amended): An exposure apparatus according to claim 11, wherein ~~the injection unit injects the carbon dioxide so that~~ the resistivity value is between 0.04 MΩ·cm and 5 MΩ·cm.

13(Previously Amended): A device manufacturing method comprising the steps of:
exposing an object using an exposure apparatus according to claim 1 and
developing the exposed object.

14-21 (Canceled):

22 (New): A device manufacturing method comprising the steps of:
exposing an object using an exposure apparatus according to claim 9; and
developing the exposed object.

23 (New): A device manufacturing method comprising the steps of:
exposing an object using an exposure apparatus according to claim 11; and
developing the exposed object.